

**ABSTRACT**

5 The present invention discloses a method of calculating a static formation temperature in  
a reservoir penetrated by a wellbore. One embodiment of the present invention comprises  
estimating the static formation temperature and calculating a formation fluid temperature at the  
wellbore, the calculation based, in part, on the estimated static formation temperature. The  
temperature of a sample of formation fluid at the wellbore is measured. The calculated formation  
fluid temperature at the wellbore is compared with the measured temperature of the sample of  
10 formation fluid. The static formation temperature is predicted by altering the estimate of the  
static formation temperature until an error between the calculated formation fluid temperature at  
the wellbore and the measured fluid formation temperature is minimized.